

What is claimed is:

1. A method of inhibiting a rejection response by inducing immune tolerance in a recipient to foreign mammalian donor cells, comprising the steps of:
 - a) exposing the recipient to an immunotoxin so as to safely reduce the recipients's T-cell lymphocyte population by at least 80%; and
 - b) transplanting the donor cells into the recipient, such that a rejection response by the recipient to the donor cell is inhibited.
2. The method of claim 1, wherein the donor cells constitute an organ.
3. The method of claim 1, wherein the donor cells constitute tissue from an organ.
4. The method of claim 1, wherein the donor cells are allogeneic.
5. The method of claim 1, wherein the donor cells are xenogeneic.
6. The method of claim 1, further comprising administering an immunosuppressant compound to enhance the anti-T cell effects of the immunotoxin.
7. The method of claim 6, wherein the immunosuppressant compound is cyclosporin.
8. The method of claim 6, wherein the immunosuppressant compound is mycophenolate mofetil.

-

19. The method of claim 1, wherein the donor cell is from a live donor, and wherein the immunotoxin is administered from 15 hours to 7 days before the transplanting step.

20. The method of claim 1, wherein the donor cell is from a cadaver and is from kidney, and wherein the immunotoxin is administered from 6 to 15 hours before the transplanting step.

21. The method of claim 1, wherein the donor cell is from a cadaver and is selected from the group consisting of heart, lung, liver, pancreas, pancreatic islets and intestine, and wherein the immunotoxin is administered from 0 to 6 hours before the transplanting step.

~~22. The method of claim 1, wherein the immunosuppressant is administered beginning from about 0 to 6 hours before the transplanting step and continuing for up to several weeks after the transplantation step.~~

23. The method of claim 1, wherein the immunotoxin comprises an anti-CD3 antibody moiety linked to a diphtheria protein toxin moiety, wherein the toxin moiety has a binding site mutation that reduces binding.

24. The method of claim 23, wherein the immunotoxin is anti-CD3-CRM9.

25. The method of claim 23, further comprising administering a non-toxic mutant of diphtheria toxin before or at the same time as the exposure step.

Arld
C5

25